

| | | | |
|-------------------------------|-----------------------------|---------------------|--|
| Notice of Allowability | Application No. | Applicant(s) | |
| | 10/635,887 | QI, YANLING | |
| | Examiner Ryan M. Stiglic | Art Unit 2112 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. This communication is responsive to amendment filed February 28, 2006.
2. The allowed claim(s) is/are 1-15, 17-19 and 21.
3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All
 - b) Some* c) None of the:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) hereto or 2) to Paper No./Mail Date _____.
 - (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. Notice of References Cited (PTO-892)
2. Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. Notice of Informal Patent Application (PTO-152)
6. Interview Summary (PTO-413),
Paper No./Mail Date _____
7. Examiner's Amendment/Comment
8. Examiner's Statement of Reasons for Allowance
9. Other _____.

EXAMINER'S AMENDMENT

DETAILED ACTION

1. Claims 1-15, 17-19 and 21 are pending and have been examined.
2. Claims 1-15, 17-19 and 21 are allowed.

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Daniel Fishman on May 4, 2006.

The application has been amended as follows:

The last full paragraph at the bottom of page 2 and continuing to pages 3 now reads as follows:

--Further details of both SCSI2 and SCSI3 reservation protocols are generally known in the art and maybe viewed in public specification standards such as available on the Web at www.t10.org. In particular, SCSI3 persistent reservation commands and exchange protocols are discussed in: SPC-3 SCSI Primary Commands-3 (third generation command set for all SCSI devices), which is hereby incorporated by reference. The older SCSI2 reservation protocols are now obsoleted by the updated SCSI3 persistent reservation protocols. However, since older legacy systems still generate such sequences,

the specifications therefor are still available such as in SPC SCSI-3 Primary Commands (first generation command set for all SCSI devices) which is hereby incorporated by reference. In view of these differences, reservations are typically managed differently by host systems designed for SCSI2 storage subsystems as compared to host systems adapted for interaction with SCSI3 storage subsystems.—

In claim 10 of the amendment filed February 28, 2006 replace “wherein the translator and ID generator are operable transparently with respect to the drive, and” with --wherein the translator and ID generator are operable transparently with respect to the driver, and--.

In claim 15 of the amendment filed February 28, 2006 replace “wherein the translator means is adapted to exchange the SCSI3 persistent reservation requests with a storage subsystem adapted to couple the system and adapted to coupled to other systems that directly support SCSI3 persistent reservation exchanges” with --wherein the translator means is adapted to exchange the SCSI3 persistent reservation requests with a storage subsystem adapted to couple the system and adapted to couple to other systems that directly support SCSI3 persistent reservation exchanges--

Allowable Subject Matter

4. The following is an examiner's statement of reasons for allowance:

The Examiner has done a thorough search and found no prior art of record, alone or in combination, that teaches or fairly suggests the method and apparatus for mapping SCSI2 reservation exchanges to SCSI3 persistent reservation exchanges as currently claimed. The Examiner agrees with applicant's remarks (pages 9-11), regarding claim 1, that nothing in Flynn discloses translating a SCSI2 reservation exchange into a corresponding SCSI3 reservation since the standard "open" function call is not explicitly equated with a SCSI2 reservation (page 10 of applicant's remarks). Furthermore, Flynn fails to teach the translation of "open options" into SCSI3 exchanges occurs transparent to the SCSI2 application (or operating system of Flynn). Neither Flynn nor Tawill teach or reasonably suggest a heterogeneous mix of systems that support only SCSI2 reservation exchanges and systems that directly support SCSI3 persistent reservation protocol exchanges. Instead Flynn appears teach a system that issues both SCSI2 reservation exchanges, for single path configurations, and SCSI3 persistent reservation exchanges, for multiple path configurations. In other words Flynn does not teach a mix of systems where each system supports *only* either SCSI2 reservation exchanges or SCSI3 persistent reservation exchanges.

Tawill teaches a system and method for translating a SCSI2 reservation exchange into a SCSI3 persistent reservation exchange. Tawill clearly demonstrates SCSI2 reservation exchanges received by a resource management engine are converted to SCSI3 persistent reservation exchanges to preserve the status of other reservation commands during a SCSI reset. However, applicant correctly argues (page 11 of applicant's remarks) that nothing in Tawill teaches or reasonably suggests a heterogeneous mix of systems that support only SCSI2 reservation

exchanges and systems that directly support SCSI3 persistent reservation protocol exchanges.

Since neither Tawill nor Flynn teach or fairly suggest every claim limitation, independent claim 1 is allowable over the prior art of record.

Independent claims 10 and 15 contain similar limitations and were rejected on reasons similar to those established for claim 1. As such, independent claims 10 and 15 are allowable over the prior art of record for the reasons listed above. Furthermore, claims 2-9, 11-14, 17-19 and 21 depend from independent claims 1, 10 and 15 and as such are allowable over the prior art of record for the reasons listed above.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

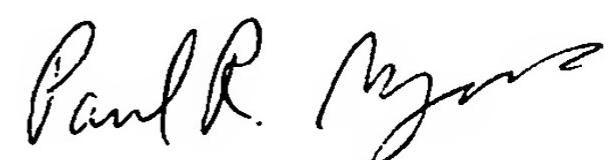
5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- SPC-3 SCSI Primary Commands – 3 (third generation command set for all SCSI devices) and SPC SCSI Primary Commands (first generation command set for all SCSI devices) have been cited to fix problems with the incorporation by reference using hyperlinks on pages 2 to 3 of the specification.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan M. Stiglic whose telephone number is 571.272.3641. The examiner can normally be reached on Monday - Friday (6:00-3:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rehana Perveen can be reached on 571.272.3676. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



RMS

PAUL R. MYERS
PRIMARY EXAMINER